

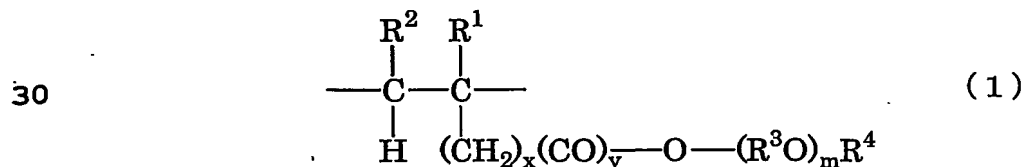
CLAIMS

1. A cement admixture
 which comprises a polycarboxylic acid copolymer having
 5 a polyalkylene glycol side chain,
 said polycarboxylic acid copolymer being constituted of
 two or more species of copolymers with different acid values,
 and
 at least one of said two or more species of copolymers
 10 with different acid values having an oxyalkylene group containing
 3 or more carbon atoms.

2. The cement admixture according to Claim 1,
 wherein the ratio of the acid value of said two or more
 15 species of copolymers is 1.2 to 5.

3. A cement admixture
 which comprises a polycarboxylic acid copolymer having
 a polyalkylene glycol side chain containing an oxyalkylene group
 20 having 3 or more carbon atoms,
 said polycarboxylic acid copolymer being constituted of
 two or more species of copolymers with a weight average molecular
 weight of 20000 or less.

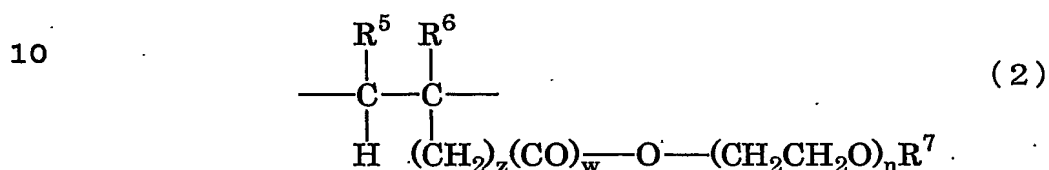
4. The cement admixture according to Claim 1, 2 or 3,
 wherein said copolymer has a site represented by the
 following formula (1);



in the formula, R^1 and R^2 may be the same or different and each
 represents a hydrogen atom or a methyl group; x represents a
 35 number of 0 to 2, y represents 0 or 1; R^3O s may be the same or

different and each represents an oxyalkylene group having 2 to 18 carbon atoms, and 0.01 to 49 mole % of an average molar number of addition of the oxyalkylene group is an oxyalkylene group having 3 to 18 carbon atoms; R^4 represents a hydrogen atom or a hydrocarbon group having 1 to 30 carbon atoms; and m is an average molar number of addition of the oxyalkylene group, and represents a number of 3 to 300,

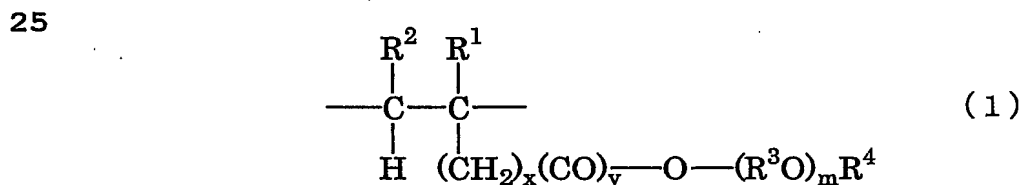
and a site represented by the following formula (2);



in the formula, R^5 and R^6 may be the same or different and each represents a hydrogen atom or a methyl group; z represents a number of 0 to 2; w represents 0 or 1; R^7 represents a hydrogen atom or a hydrocarbon group having 1 to 30 carbon atoms; and n is an average molar number of addition of an oxyethylene group, and represents a number of 1 to 300.

5. A cement admixture comprising a polycarboxylic acid copolymer,

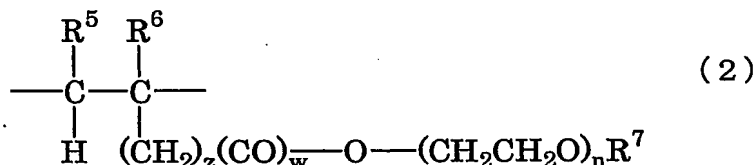
wherein said polycarboxylic acid copolymer has the site represented by the following formula (1);



in the formula, R^1 and R^2 may be the same or different and each represents a hydrogen atom or a methyl group; x represents a number of 0 to 2; y represents 0 or 1; R^3O s may be the same or different and each represents an oxyalkylene group having 2 to 18 carbon atoms, and 0.01 to 49 mole % of an average molar number of addition of the oxyalkylene group is an oxyalkylene group

having 3 to 18 carbon atoms; R^4 represents a hydrogen atom or a hydrocarbon group having 1 to 30 carbon atoms; and m is an average molar number of addition of the oxyalkylene group, and represents a number of 3 to 300,

5 and the site represented by the following formula (2);



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in the formula, R^5 and R^6 may be the same or different and each represents a hydrogen atom or a methyl group; z represents a number of 0 to 2; w represents 0 or 1; R^7 represents a hydrogen atom or a hydrocarbon group having 1 to 30 carbon atoms; and
 15 n is an average molar number of addition of an oxyethylene group, and represents a number of 1 to 300.

6. The cement admixture according to Claim 5,

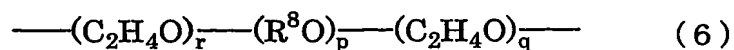
wherein a mole ratio of the site represented by the formula

20 (1) and the site represented by the formula (2) in said polycarboxylic acid copolymer: (A)/(B) is 1/99 to 99/1.

7. The cement admixture according to Claim 5 or 6,

wherein said polycarboxylic acid copolymer has a site in

25 which R^3O in the formula (1) is the following formula (6):



in the formula, R^8 represents an alkylene group having 3 to 18
 30 carbon atoms; r and q are average molar numbers of addition of oxyethylene groups, and each represents a number of 0 to 300, provided that one of r and q is 0, the other is a number of 2 to 300; p represents an average molar number of addition of the oxyalkylene group, and is a number of 1 to 50, and $r+p+q$ is a
 35 number of 3 to 300,

and the site represented by the formula (2).

8. The cement admixture according to Claim 7,
wherein a mole ratio of the site in which R^3O in the formula
5 (1) is the formula (6) and the site represented by the formula
(2): (C)/(B) is 1/99 to 99/1.